



Florida Native Plant Society ~ Sea Rocket Chapter ~ Serving Central & North Brevard County

NOVEMBER 2019

The purpose of the Florida Native Plant Society is to promote the preservation, conservation, and restoration of the native plants and native plant communities of Florida.

**~ Sea Rocket ~
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To contact us by email:

searocketfnps@gmail.com

NOVEMBER GENERAL MEETING

"Lagoon Friendly Lawns"

Kaylyn Palmer has been a resident in Brevard County all her life and resides in Port St. John. Kaylyn graduated High School and college with her Associate's Degree in May 2017. She came on board with Keep Brevard Beautiful as a volunteer in August 2016 and is now the Program Coordinator. She runs the great programs here at KBB such as the Lagoon Friendly Lawns Program, a nutrient reduction program made to encourage residents to reduce their pesticides and fertilizers to protect our Indian River Lagoon. She also runs the Litter Quitter program which is a program dedicated to creating environmentally safe businesses here in Brevard County, she encourages them to reduce their plastic and styro-foam use to prevent marine debris in our waterways. Lastly, she also coordinates the recycling program, she attends each Brevard County school and present to 4th and 5th grade students about the landfill and the importance of recycling.

November General Meeting will be November 20th at 6:30 at the Enchanted Forest Education Bldg.

Special Date!

RSVP this month!

CHRISTMAS PARTY
FUN AND FELLOWSHIP FOR ALL!

Save the Date: 6:30 Sunday, 08 December 2019
Dixie Crossroads 1475 Garden St.
Titusville, FL 32796

RSVP # of people in attendance to Armand De Filippo at
321-289-4102 or adf8074@gmail.com



Find us on Facebook

For a comprehensive view of Sea Rocket activities go to <https://www.facebook.com/searocketchapter>

Sea Rocket at the 11th Annual Mims Mullet Festival



FNPS was well represented by the Sea Rocket Chapter. It was a beautiful day in Mims. The sun was up, and wind was down. Perfect for the 11th Annual Mullet Festival. It seemed there was something for everyone. There were foot races, a Throne derby, mullet tosses, music aplenty, a whole lot of games for the young 'uns, a car show, and a lot of food. There was smoked mullet, fried mullet, and BBQ ribs, not to mention shaved ice.

Sea Rocket's space was looking good. Janina and Patti had put it together expertly. The table was organized and well stocked. Sea Rocket had a steady flow of people that wanted to know about native plants and what to plant for a specific purpose. There were several questions that challenged the group, but with the help of books those questions were answered. The Native Plant Sale on October 26th was advertised and well received. Our volunteers walked about and enjoy all the amenities offered by the festival. It was a successful outreach educating people on the importance of native plants verses exotics. On how native plants help protect the lagoon from contamination, and how natives will lower water bills and maintenance cost. Many people took information with them on attracting butterflies, birds, pollinators. Sign me up for next year. David Humphrey



Sea Rockets **first shift.**

Joyce, & Jerry, Janina, Dave

Second shift we had Jim Sloan,



Bake Sale Items



I want one of these. It comes with ear plugs.



Many vendors were there to serve.

Lots of supervised things for the kids to do. Even had a rock climbing tower.



World Famous Frozen Mullet Toss



To the winner of the mullet toss goes the golden throne award. Such fun can rarely be had on Earth.



Down home music for the discriminating music devotee.



Landscaping with a Purpose – What's Diversity Got To Do with It?

by Dr. Randi Eckel

(Original post February 2018 in ELA Newsletter @ www.ecolandscaping.org)

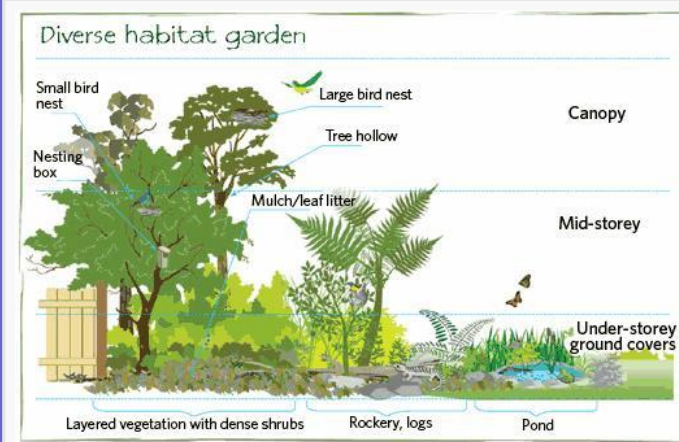
In the fragmented ecosystems where we live and work, the importance of diversity in our landscapes cannot be over emphasized. Diversity of native plants, insects, mammals, birds, amphibians.... They all play a crucial role in sustaining a healthy environment.

When we encourage a diversity of native plants in the landscape, we provide just one component of a successful habitat. We all learned the components of sustainable habitats when we were in elementary school – all creatures need food, shelter, and water. But what does this mean in a landscape? We need diversity of food: native plants that supply food for insects that in turn become food for other insects, birds, and animals large and small. We must have plant diversity to feed a diversity of creatures, but we also need structural diversity. Places for butterflies to hide at night and moths to hide during the day. Places for all sorts of creatures to shelter from weather, both summer and winter. Places for cover and nesting sites. We need diversity of form: trees, shrubs, evergreens, and groundcovers; leaf litter, brush piles, rock piles and fallen logs. We also need water – streams, ponds, bird baths, and mud puddles. In-

corporating all these elements into the landscape does not require a large space, but it does require creative vision.

By using native plants we are attempting to recreate functioning ecosystems. To do that, we need diversity! Yet we use only a tiny fraction of the plants at our disposal when we plant or enhance our gardens, fields, and forests. In doing so, we hamper the ability of those ecosystems to function well. The more plant diversity we employ, the greater diversity of insects we will have in that ecosystem.

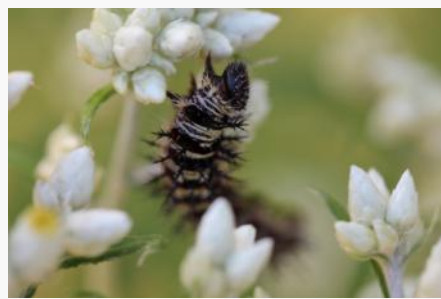
Most insect herbivores (like caterpillars and beetles) are specialists – not generalists. If their host



Ecologically balanced habitat gardens require food, shelter and water as well as a diversity of structure and native plants. Source: City of Ryde, Australia, <http://www.ryde.nsw.gov.au>

plant is not present, they will not be present either. We have learned this lesson very well from the monarch butterfly (*Danaus plexippus*) – as we all know, they rely on milkweeds (*Asclepias* sp.) to feed their young. But for a successful ecosystem we need lots and lots of insects of many different types. Just as plants are critically important to the planet because they capture the energy of the sun, insects are the primary herbivores that begin the movement of that energy up the food chain. Plant choices will drive food choices which will dictate who, if anyone, lives in any ecosystem. By employing a greater diversity of native species in the landscape, so too, will we create a more diverse faunal component. More diverse butterflies, yes, but also more species of all sorts of arthropods (predators, parasites, etc.) as well as more species of birds, mammals, turtles, salamanders, and snakes.

Landscaping with a Purpose – What’s Diversity Got To Do with It? (CONTINUED)



An American painted lady caterpillar (*Vanessa virginiensis*) feeding on Sweet Everlasting (*Pseudognaphalium obtusifolium*).

For ecologically balanced habitat gardens to be accepted requires education. In a well-balanced habitat garden, herbivores stay in check due to the balance of predators and prey. Folks are, by and large, afraid of caterpillars and most other insects in their gardens – but they love butterflies and birds. The connection between hundreds of species of caterpillar turning into beautiful butterflies (and moths!) and also serving as a major food source for birds is not apparent to most people. The same is true for many other creatures that occupy the world around us. Toads eat slugs. Snakes eat mice and voles. Hawks eat rabbits. They may not all be pretty to the average eye,

but they all work together. By creating an ecologically balanced habitat through the use of diverse native plants as well as structural diversity, a landscape can support an entire community of creatures.

Sadly, the average landscape project uses only a minute fraction of the native plants at our disposal. New England, for example, has approximately 2,500 native plant species (Atlas of the Flora of New England, Angelo & Boufford, <http://neatlas.org/>), yet your average landscape project uses only perhaps 20 of them. The same beautiful few are used over and over again: butterfly milkweed (*Asclepias tuberosa*), purple coneflower (*Echinacea purpurea*), black-eyed Susan (*Rudbeckia hirta*), wild bergamot (*Monarda fistulosa*), New England aster (*Symphotrichum novae-angliae*), and just a few others. But there are so many more native plants to embrace.

One reason for the use of the same plants on every project is, of course, that these are the plants that have been “discovered” by the horticultural industry and are easily available. This creates a vicious cycle, with businesses stocking only plants that customers ask for – and customers asking for the same plants that are always available. But another factor driving this lack of diversity is that through terrascaping and soil amendments, we attempt to turn all soil in gardens into “average to moist loamy soil with a neutral pH.” Shouldn’t we stop trying to change every inch of soil beneath our feet? Instead, we should embrace the soil types and moisture conditions we have and take advantage of the fantastic array of native plants adapted to particular conditions. Embrace the wet swale, the heavy clay, the rocky outcrop, and the sandy soil. We can use the great diversity of native plants to fill every niche, for there is truly, in the abundance of native plants at our fingertips, a plant for every place.

By using a diversity of native plants, we can encourage functioning plant communities that have few pest problems and beautifully support a vast array of wildlife, with herbivores and predators and parasites all balancing one another.

About the Author: Dr. Randi Eckel has been studying native plants for over 30 years, and founded the mail-order native plant nursery [Toadshade Wildflower Farm](#) in 1996 to further public awareness and availability of native plants. A life-long naturalist, lover of nature, and confirmed plant and ecology nerd, Randi specializes in the interactions between plants and other living things. She is known for her lively and engaging lectures and workshops on growing and propagating native plants, and offers interesting, nuanced information on the complex issues facing native plants and native plant communities.

Biochar–Yesterday's answers to today's Problems.

By David Humphrey



Courtesy of UofF IFAS research <http://blogs.ifas.ufl.edu/swsdept/tag/biochar/>

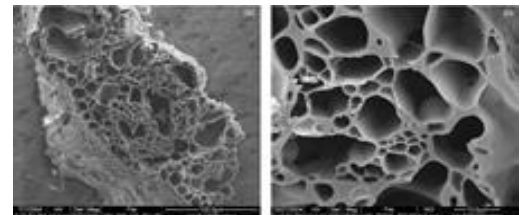
Biochar is the carbonized remains of heating organic matter in a low oxygen environment. Think "muck fire" where the buried organic matter smolders over days, weeks, months even years. Biochar is useful in turning agricultural and forestry waste products into a useful soil amendment. Through a process called pyrolysis the organic matter is heated in a low oxygen environment. Pyrolysis will produce a dense mass of stable carbon, or biochar. The technology behind making biochar may have changed over its epoch long history, but the purpose has not. Archeologists have found in the Amazon basin areas of rich fertile soil called "terra preta" or dark earth. Possibly it was a muck fire that "burned" the organic materials anaerobically, leaving a layer of natural biochar. Over the years organics with the bacteria and mold spores migrated down into the waiting spaces it found in the biochar. These areas, although neglected for hundreds of years are still more fertile than the rain forest soils around them.

Worldwide soil degradation caused by overuse, or loss of topsoil is of major concern. Today, the approach to this problem is to load the soil with tons of chemicals to feed crops. The soil drained of nutrients and the microbiota that supports plant life, is used to anchor the crops so they will not blow away as the topsoil has.

Researchers and scientists now suggest that applying inoculated biochar to the depleted soil will increase the health of the soil and consequently the health of the crops grown in this enriched environment. Biochar can help soil by increasing water retention, improving porosity, and improving microbial activity. A significant reason for these positive attributes is that biochar is very porous creating a large surface area for natural chemistry to work. It also provides places for beneficial bacteria and fungus to "live long and prosper".

There are several other characteristics biochar enables or enhances which are;

- Reduce nitrous oxide emissions (Greenhouse gas)
- Help regulate nitrogen leaching
- Improves electrical conduction through the soil
- Decreases acidity of the soil.



Photomicrograph of biochar structure.

Inoculated Biochar is helpful in composting by promoting microbial activity vital to a successful compost pile. Biochar can also be inoculated by adding it to an already successful compost pile. The biochar will begin to absorb and harbor the bacteria and fungus needed to raise inert dirt to living soil. Biochar alone is carbon but needs to be inoculated to be the powerhouse of living soils.

Summing up, science considers the process of making biochar, a carbon-negative process, in that it ties up CO₂ into a stable carbon, the same CO₂ that would otherwise be released to the environment. Enrichment of our exhausted, overused, underappreciated soil is a big positive for biochar. Instead of chemical fertilizers, biochar may just be the best answer for the future of agriculture. It's a natural, non-GMO, non-poisonous, environmentally positive, answer to a healthier future.

<https://regenerationinternational.org/2018/05/16/what-is-biochar/>

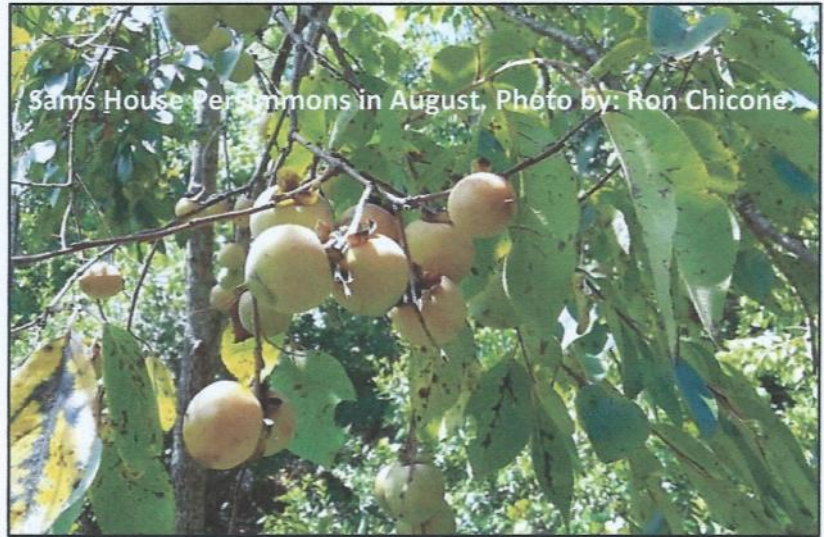
https://edis.ifas.ufl.edu/topic_biochar

AN ANCIENT GUSTATORY DELIGHT OF THE WILD EARTH

The American Persimmon in Florida

By: Ron Chicone, Jr.

Early Native Americans, European settlers, explorers and pioneers all shared a connection to Florida's wild landscape. They all knew that nature holds within her, special places that are sacred to the soul. Some have scenic vistas, some offer tranquility, or abundant wildlife, but it is of the rendezvous with an ancient gustatory delight in the hidden corners of nature on which I wish to speak. Places where one is granted the pleasure of tasting the fruits of the wild earth itself. If Eden survives at all, it is in these sanctuaries that hold the raw essence of Creation.



One of these places is Sams House at Pine Island in Brevard County where I recently came upon a sight quite rare in this area, a wild American persimmon tree (*Diospyros virginiana*), in full fruit. Ah, what a find! One of the sweetest, most delectable fruits of the forest. It, along with several smaller persimmon trees, was growing along the edge of the old road to the historic groves near a patch of overgrown original flatwoods that somehow persisted amidst the Sams family citrus groves.

One of the best accounts of wild persimmon trees occurring in Florida is from Richard Campbell in his article *Stalking the American Persimmon*:

My father had learned of these trees [growing in the Everglades] from some of the area's greatest pioneering ecologists and passed along the information only to us...if one finds an Indian camp or settler homesite, there are likely to be American persimmons... [It] is an iconic North American native cherished and tended by native Americans throughout time.

The place where Campbell picked persimmons with his father is called Paradise Key and is a famous part of Everglades National Park. An island refuge deep in the River of Grass whose persimmons may have offered sustenance to Chief Billy Bowlegs and his Seminole warriors. Actually, it is no stretch to deduce that the occurrence of this tree on the southern extremity of its range may point to the long-ago intervention of a human hand. According to Noris Ledesma of Fairchild Tropical Botanic Garden: "It was the indigenous people who had the most success making use of the American persimmon for food...one can find remnant stands of American persimmon that were planted hundreds of years ago, and they still produce fruit."

Indeed, these are special places where persimmons grow, and their exalted status is reinforced by the famous American naturalist William Bartram (1739-1823), who had this to say in his book *Travels*:

I observed in the ancient fields...Persimmon...diospyros... (the Indians) inform us, that these trees were grown by the ancients on account of their fruit, as being wholesome and nourishing food. Though these are natives of the forests, yet they thrive better, and are more fruitful in cultivated plantations and the fruit is in great estimation with the present generations of Indians.

An Ancient Gustatory Delight of the Wild Earth (Continued 2 of 3)

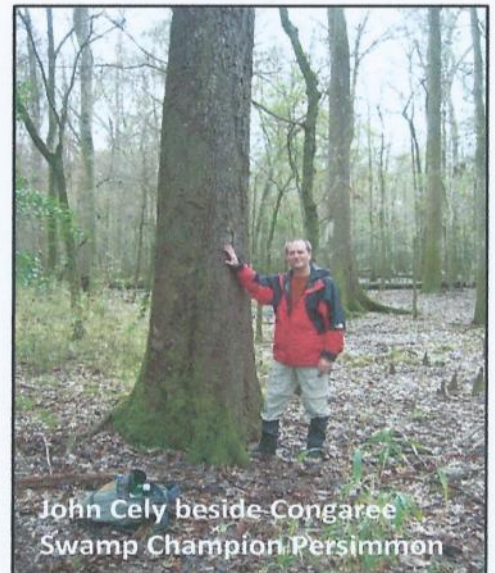
Of course, humans are not alone in their appreciation of this tree, it is a favorite of wildlife. Green Deane, author of the website *Eat the Weeds*, has lots of good information about this plant:

There is hardly a woodland creature that doesn't like the persimmon. Its waxy, fragrant flowers help produce honey. The persimmon is also sometimes called "possum wood" because opossums know a good food when they find it.

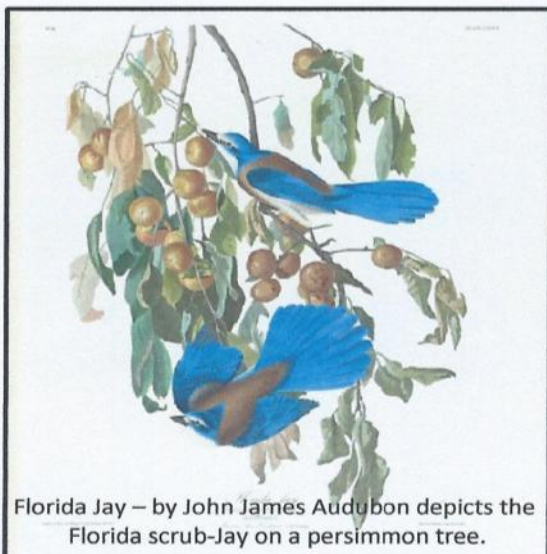
Is it coincidence that the old trail where "possum wood" grows at Sams House was historically named Possum Road? Were persimmons growing there when Sarah and John Sams arrived in the late 1800's? Perhaps the Sams family brought seeds from their favorite South Carolina Lowcountry trees when they journeyed to Florida, or maybe they arrived here and saw the wild persimmon trees growing in the piney woods and knew that this was home. According to University of South Carolina professor David Shields "Fruit was a fixture of the early 19th-century plantation table. Dried persimmons were typically served with meals. And persimmon beer - more a soft drink than a fermented brew - was ubiquitous. [It] was better known as possum toddy."

Being a member of the Ebony (Ebenaceae) family, persimmon wood is dense and durable and prized for specialty uses from golf clubs to musical instruments to loom shuttles. Persimmon trees also have an interesting ecology in that they will grow almost anywhere from scrub to swamp. Their range is from Florida north to Pennsylvania and west to Arkansas. Being from South Carolina, I can attest to the stately nature of the persimmon trees there. Actually, the former National Champion persimmon is in the Congaree Swamp National Park in South Carolina. Naturalist John Cely writes this in a 2014 blog: "Measuring 7.6 feet in circumference and 130 feet high, this remarkable tree stands out in winter with its jet-black bark."

However, in Florida they exhibit a different nature. Although the "tree" is common in Central Florida, it is rare (at least in my experience) to find one taller than about 20 feet and actually bearing fruit. Green Deane agrees, saying: "Most of the persimmon trees you will see, especially in Florida, are only eight to ten feet tall, occasionally 15 to 20 feet. Persimmons like to grow along the edges of things; fields, roads, rivers...trails."



John Cely beside Congaree Swamp Champion Persimmon



Florida Jay – by John James Audubon depicts the Florida scrub-Jay on a persimmon tree.

Our persimmons may be different due to adaptations to fire, to subtropical dry or wet seasons, or other unknown factors. I commonly encounter young persimmon saplings in the scrub or in the swamp, but am disappointed when I look around for their mature parents. It sometimes saddens me just a touch to think these saplings may never bear on their branches the Fall ornaments that bring forth a revelry of tooth and tongue.

However, as all good Southerners know, an unripe persimmon is highly astringent. Never eat a wild persimmon before it gets soft and wrinkled or your face will attain a level of contortion that would make Ace Ventura jealous. Capt. John Smith, of Jamestown fame, wrote that if a persimmon "is not ripe it will draw a man's mouth awrie with much torment."

And he was not kidding. Before ripening they contain high amounts of tannins and, according to the *North American Cornucopia*, they have the ability to “cross-link the proteins of your palate and saliva causing surfaces to constrict and lubrication to fail.” Yea, it’s not a sensation you easily forget. Smith went on to write “Ah, but eating a ripe persimmon is as pleasurable a gustatory experience as eating an unripe one is horrible.” Campbell, in his article, says that “they have one of the most exceptional flavors I have ever known: sugary-sweet, with thick, pasty flesh like marmalade within a skin.” But he also laments that “today we look upon the American persimmon with ambivalence. The fruit are small and don’t fit into our world of packaged products, skin-deep beauty and low everyday prices.” However, this may be a blessing of sorts, because some pleasures, as you may know, are better experienced in the forest.

For more information:

Dean, Green. (2011). *Persimmons: Pure Pucker Power*. Retrieved from <http://www.eattheweeds.com/persimmons-pure-pucker-power-2/>

Wunderlin, R.P., Hansen, B.F., Franck, A.R. and F.B. Essig. (2019). *Atlas of Florida Plants*. Retrieved from <http://florida.plantatlas.usf.edu/Plant.aspx?id=3858>

Sams House at Pine Island Conservation Area
<https://www.brevardfl.gov/EELProgram/Sanctuaries/SamsHouseSanctuary>

Community Corner

Happenings About Town

Saturday in the Garden

Join us on Saturday, November 16th at 9:30 am as we spend a few hours sprucing up the Enchanted Forest Garden. The Sea Rocket Chapter has an agreement with the EEL as part of our native plant storage to assist in making the Forest a beautiful place for all of its visitors.

444 Columbia Blvd, Titusville, FL 32780

UPCOMING DATES

- 11/12 Board Meeting
5:30 pm New York New York
South Titusville
- 11/16 “Saturday” in the Garden
@ 9:30
- 11/20 General Meeting *NEW DATE
Kaylyn Palmer from Keep
Brevard Beautiful will share
with us how to Keep The
Lagoon @6:30pm

DECEMBER:

- 12/8 Christmas Dinner at
6:30 pm Dixie Crossroads

If you would like your event listed here for our members to see please email us at searocketfnps@gmail.com

FNPS 2020 Endowment Grant Research Awards,

Conservation Grant Awards

And

The Dan Austin Award for Ethnobotany

The Florida Native Plant Society maintains an **Endowment Research Grant** program for the purpose of funding research on native plants. These are small grants (\$1500 or less), awarded for a 1-year period, and intended to support research that forwards the mission of the Florida Native Plant Society which is "to promote the preservation, conservation, and restoration of the native plants and native plant communities of Florida."

FNPS **Conservation Grants** support applied native plant conservation projects in Florida. These grants (\$5000 or less) are awarded for a 1-year period. These projects promote the preservation, conservation, or restoration of rare or imperiled native plant taxa and rare or imperiled native plant communities. To qualify for a Conservation Grant, the proposed project must be sponsored by an FNPS Chapter.

The **Dan Austin Award for Ethnobotany** will provide up to \$1500 to graduate or undergraduate students who are studying Florida ethnobotany – i.e., the study of the relationship between peoples or cultures with plants native to Florida or Florida ecosystems. These can be current uses or historic uses.

Application guidelines and details are on the FNPS Web site (www.fnps.org), click on 'What We Do/Grants and Awards'. Questions regarding the grant programs should be sent to info@fnps.org.

Application deadline for the 2019 Awards is March 6, 2020. Awards will be announced at the May 2020 Annual Conference at the University of North Florida, Jacksonville, Florida. Awardees do not have to be present at the Conference to receive award.

Join the “Highway Squad”

The Sea Rocket Chapter is performing this community service on a section of Columbia Blvd.



Have you seen the signs?

We need volunteers to help out in keeping this section of the highway litter free.

Be sure to keep your eyes out for an email from Janina confirming the date. We hope to see you!

Contact Janina Shoemaker (janina13@cfl.rr.com) to **volunteer** and get involved in this great community service event, which will bring more awareness to the Sea Rocket chapter.



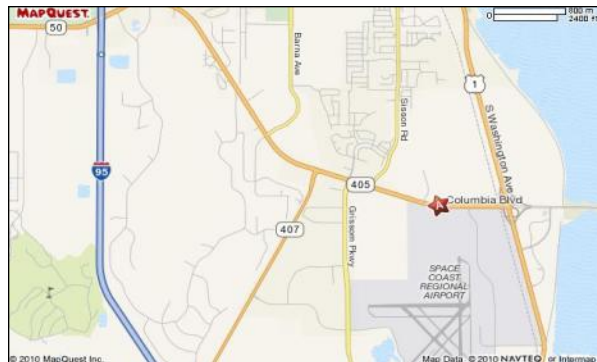
The Enchanted Forest Sanctuary Education Center
444 Columbia Blvd, Titusville, FL 32780 321-264-5185



Driving Directions to the Sanctuary:

From I-95 Northbound: take SR-407 Exit 212 east 2.7 miles to SR-405 intersection. Turn right onto SR-405 and go east 1.9 miles (the Sanctuary entrance is on the left 0.4 miles past Sisson Road)
From I-95 Southbound: take SR-50 Exit 215 east. Turn left onto SR 50 and turn right onto SR-405 (2nd light) Travel 3.6 miles (the Sanctuary entrance is on the left 0.4 miles past Sisson Road)

From U.S. HWY 1: go west 0.5 miles on SR-405 in south Titusville. Sanctuary entrance is on the right.



**Florida Native Plant Society
Sea Rocket Chapter**



**For membership information, address change: P. O. Box 278, Melbourne, FL 32902-0278
Phone: 321-271-6702; Fax: 321-951-1941; Email: Info@fnps.org/www.fnps.org
Sea Rocket Chapter mailing address: 444 Columbia Blvd, Titusville, FL 32780**

**Sea Rocket Chapter November Board meeting will be held on
November 12th at 5:30 pm.**

The meeting will be held at New York New York in South Titusville

All members are welcome to attend.

Please RSVP if you plan to attend.

From our Friends at The Florida Trail Association (FTA)

Many of our hikes will begin at 9AM this year, particularly those of shorter duration. Notices for our hikes will continue to be posted on Meetup.com, but if anyone is in need of an email announcement, we can accommodate that. And several more are to be announced along the way. So, don't forget to join us this year, as our leadership team will do everything that they can to ensure that you can continue enjoying hiking through our beautiful hammock preserves of central Florida, while enjoying the camaraderie of seeing our old friends, and many new friends that we will make. And, of course, any suggestions or comments that you might have that you believe can enhance our effort to continue offering these hikes will always be welcomed and seriously considered .

DATE	VENUE	LEADER
11/13/2019	Cherie Down Park	Dave N
11/20/2019	Sandhills Conservation Area of Econlockhatchee	Gary W
12/4/2019	Little Big Econ: Barr St.- Kolokee trail	Gary W
12/11/2019	Orlando Wetlands	Dave N
12/27/2019	Doris Leeper	Gary W

WHEN HIKING - DON'T FORGET:

**Be sure to check out the bi-monthly newsletter of the
Florida Native Plant Society
Located online at : <http://fnps.org/resources/sabalmirror>**

